



National Nutrient Database for Standard Reference
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Statistics Report 20011, Buckwheat flour, whole-groat

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Nutrient values and weights are for edible portion.

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
Proximates													
Water	g	11.15	--	0.404	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Energy	kcal	335	--	--	--	--	--	--	--	--	Calculated or imputed	--	10/1989
Energy	kJ	1402	--	--	--	--	--	--	--	--	Calculated or imputed	--	12/2006
Protein	g	12.62	--	0.213	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Total lipid (fat)	g	3.10	--	0.088	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Ash	g	2.54	--	0.161	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Carbohydrate, by difference	g	70.59	--	--	--	--	--	--	--	--	Calculated or imputed	--	10/1989
Fiber, total dietary	g	10.0	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Sugars, total	g	2.60	--	--	--	--	--	--	--	--	Calculated or imputed	--	10/2002
Sucrose	g	1.70	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/2002

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
Minerals													
Calcium, Ca	mg	41	--	4.070	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Iron, Fe	mg	4.06	--	1.473	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Magnesium, Mg	mg	251	--	19.246	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Phosphorus, P	mg	337	--	101.189	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Potassium, K	mg	577	--	18.677	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Sodium, Na	mg	11	--	--	--	--	--	--	--	--	Calculated or imputed	--	10/1989
Zinc, Zn	mg	3.12	--	0.127	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Copper, Cu	mg	0.515	--	0.090	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Manganese, Mn	mg	2.030	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Selenium, Se	µg	5.7	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	12/1997

Nutrient	Unit	Value Per 100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
Vitamin C, total ascorbic acid	mg	0.0	--	--	--	--	--	--	--	--	Calculated or imputed	--	10/1989
Thiamin	mg	0.417	--	0.103	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Riboflavin	mg	0.190	--	0.044	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Niacin	mg	6.150	--	0.528	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Pantothenic acid	mg	0.440	--	0.060	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Vitamin B-6	mg	0.582	--	0.016	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Folate, total	µg	54	--	6.750	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Folic acid	µg	0	--	--	--	--	--	--	--	--	Assumed zero	--	01/2001
Folate, food	µg	54	--	6.750	--	--	--	--	--	--	Analytical or derived from analytical	--	12/2006
Folate, DFE	µg	54	--	--	--	--	--	--	--	--	Calculated or imputed	--	12/2006
Choline, total	mg	54.2	--	--	--	--	--	--	--	--	Calculated or imputed	20009	12/2006
Vitamin B-12	µg	0.00	--	--	--	--	--	--	--	--	Assumed zero	--	10/1989
Vitamin B-12, added	µg	0.00	--	--	--	--	--	--	--	--	Assumed zero	--	09/2004

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
Vitamin A, RAE	µg	0	--	--	--	--	--	--	--	--	Calculated or imputed	--	12/2006
Retinol	µg	0	--	--	--	--	--	--	--	--	Assumed zero	--	06/2002
Carotene, beta	µg	0	--	--	--	--	--	--	--	--	Assumed zero	--	10/2002
Carotene, alpha	µg	0	--	--	--	--	--	--	--	--	Assumed zero	--	10/2002
Cryptoxanthin, beta	µg	0	--	--	--	--	--	--	--	--	Assumed zero	--	10/2002
Vitamin A, IU	IU	0	--	--	--	--	--	--	--	--	Calculated or imputed	--	10/1989
Lycopene	µg	0	--	--	--	--	--	--	--	--	Assumed zero	--	10/2002
Lutein + zeaxanthin	µg	220	--	--	--	--	--	--	--	--	Calculated or imputed	20080	10/2002
Vitamin E (alpha-tocopherol)	mg	0.32	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	12/2006
Vitamin E, added	mg	0.00	--	--	--	--	--	--	--	--	Assumed zero	--	09/2004
Tocopherol, gamma	mg	7.14	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	12/2006
Tocopherol, delta	mg	0.45	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	12/2006
Vitamin D (D2 + D3)	µg	0.0	--	--	--	--	--	--	--	--	Assumed zero	--	11/2008
Vitamin D	IU	0	--	--	--	--	--	--	--	--	Assumed zero	--	02/2009
Vitamin K (phylloquinone)	µg	7.0	--	--	--	--	--	--	--	--	Calculated or imputed	20080	12/2006

Lipids

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
Fatty acids, total saturated	g	0.677	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
4:0	g	0.000	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	02/1995
6:0	g	0.000	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	02/1995
8:0	g	0.032	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
10:0	g	0.016	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
12:0	g	0.009	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
14:0	g	0.023	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
16:0	g	0.411	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
18:0	g	0.043	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Fatty acids, total monounsaturated	g	0.949	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989

Nutrient	Unit	Value Per 100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
16:1 undifferentiated	g	0.021	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
18:1 undifferentiated	g	0.902	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
20:1	g	0.000	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	02/1995
22:1 undifferentiated	g	0.011	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Fatty acids, total polyunsaturated	g	0.949	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
18:2 undifferentiated	g	0.877	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
18:3 undifferentiated	g	0.071	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
18:4	g	0.000	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	02/1995
20:4 undifferentiated	g	0.000	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	02/1995
20:5 n-3 (EPA)	g	0.000	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	02/1995

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
22:5 n-3 (DPA)	g	0.000	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	02/1995
22:6 n-3 (DHA)	g	0.000	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	02/1995
Cholesterol	mg	0	--	--	--	--	--	--	--	--	Assumed zero	--	10/1989
Amino Acids													
Tryptophan	g	0.183	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Threonine	g	0.482	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Isoleucine	g	0.474	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Leucine	g	0.792	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Lysine	g	0.640	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Methionine	g	0.164	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Cystine	g	0.218	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
Phenylalanine	g	0.495	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Tyrosine	g	0.230	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Valine	g	0.646	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Arginine	g	0.935	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Histidine	g	0.294	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Alanine	g	0.712	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Aspartic acid	g	1.078	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Glutamic acid	g	1.948	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Glycine	g	0.981	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Proline	g	0.482	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
Serine	g	0.652	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	10/1989
Other													
Alcohol, ethyl	g	0.0	--	--	--	--	--	--	--	--	Assumed zero	--	04/1985
Caffeine	mg	0	--	--	--	--	--	--	--	--	Assumed zero	--	10/2002
Theobromine	mg	0	--	--	--	--	--	--	--	--	Assumed zero	--	10/2002
Flavonoids													
Flavan-3-ols													
(-)-Epicatechin ²	mg	3.0	--	--	3.02	3.02	--	--	--	--	--	--	--
(-)-Epicatechin 3-gallate ²	mg	0.8	--	--	0.78	0.78	--	--	--	--	--	--	--
Flavonols													
Quercetin ^{2 3 4 5}	mg	3.5	--	0.55	1.16	8.4	--	--	--	--	--	--	--
Proanthocyanidin													
Proanthocyanidin dimers ¹	mg	46.5	--	--	0	0	--	--	--	--	--	--	--

¹Quettier-Deleu, C., Gressier, B., Vasseur, J., Dine, T., Brunet, C., Luyckx, M., Cazin, M., Cazin, J.-C., Bailleul, F., and Trotin, F. **Phenolic compounds and antioxidant activities of buckwheat (*Fagopyrum esculentum* Moench) hulls and flour**, 2000 Journal of Ethnopharmacology 72 pp.35-42

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³Kreft, I., Fabjan,N., and Yasumoto, K. **Rutin content in buckwheat (*Fagopyrum esculentum* Moench) food materials and products**, 2006 Food Chemistry 98 pp.508-512

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